

High Power Programmable DC Power Supply PWD Series

Introduction

The PWD Series programmable high power DC power supply are mainly custom made high voltage high current DC power supply. Max rated voltage is up to 5000V and max rated current is up to 10000A (10kA).

IGBT module adjustment and PWM modulation facilitate PWD series with high efficiency, high accuracy and high stability. High gain amplifier circuit design makes PWD series with fast response. Improvement on circuits brings stronger anti-interference performance. Active air duct design and optimized cooling channels effectively reduce temperature rise.

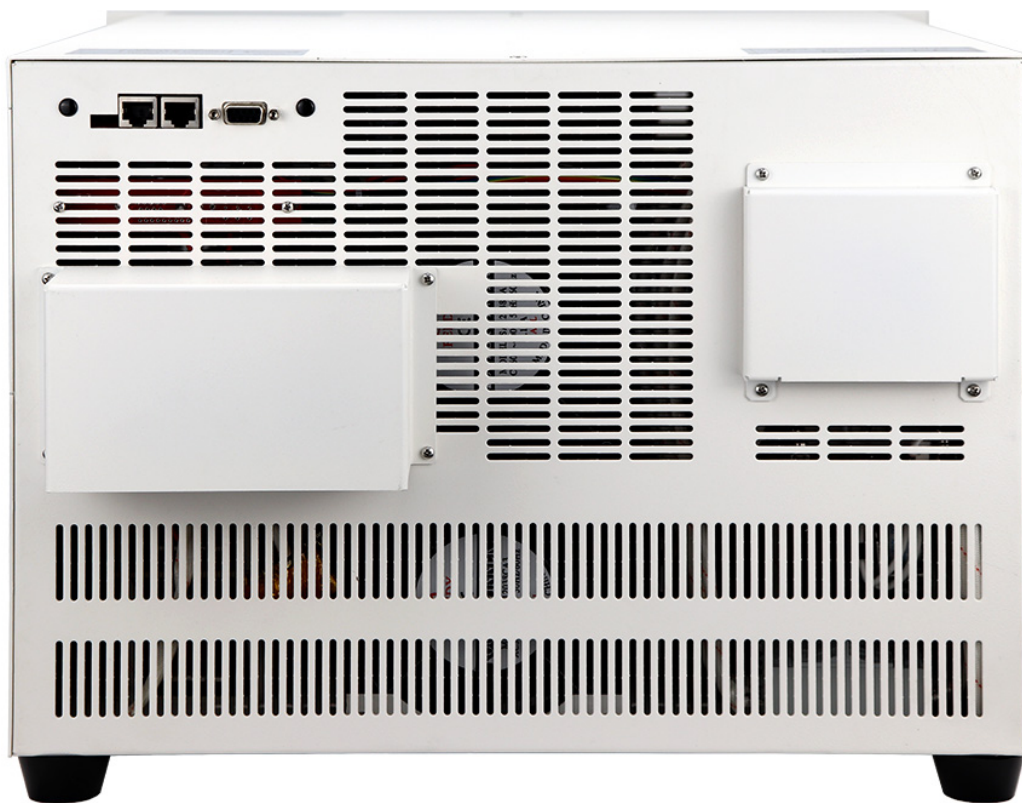
Over Voltage Protection, Over Current Protection and Over Temperature Protection keep the PWD series and their load safe from unexpected conditions. For more complicated applications, the PWD series are available with many optional functions: remote sensing, remote ON/OFF control, timer switch, square waveform output, PV curve output, etc.

Features

- ✓ Max. output voltage **5000V**, Max. output current **10000A**
- ✓ Applying IGBT module and 19-inch standard size
- ✓ **4 digits LCD display for voltage, current, power and load resistance**
- ✓ Constant voltage and constant current operations, auto CV/CC switch
- ✓ Front panel operation: preset voltage and current, output ON/OFF
- ✓ Multiple protections: OVP, OCP, OTP and OLP
- ✓ **Communication: RS-232 and RS-485 interface**
- ✓ Optional function
 - Remote control: 0-5V, 0-10V or 4-20mA signal to control output voltage and current
 - Remote Sensing: compensate the voltage drop
 - Remote ON/OFF control: using a replay to control the output
 - Timer Switch: turn on or off the output as per preset time
 - Square Waveform Output: output square waveform according to preset time and cycles
 - Reverse current protection: to protect power supply from damage by reverse current from EUT
 - Reverse polarity switch: to allow change of positive and negative output polarity in reverse direction
 - PV curve output for solar panel tests
- ✓ Customized specifications and functions acceptable

High Power DC Power Supply

Product photo (12kW frame)



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Specifications

Working mode	IGBT
Input	3 ϕ 4W, 380V $\pm$ 10% 50Hz/60Hz
Constant Voltage Operation	
Output voltage	DC 0~100% full range adjustable
Line regulation	$\leq$ 0.3%FS rms
Load regulation	$\leq$ 0.5%FS rms
Ripple & Noise	$\leq$ 0.3%FS+10mVrms
Time drift	$\leq$ 0.5%FS rms
Temperature drift	$\leq$ 0.1%FS rms/ $^{\circ}$ C
Setting accuracy	$\pm$ (0.5% FS +50mV) (25 $\pm$ 5 $^{\circ}$ C)
Constant Current Operation	
Output Current	DC 0~100% full range adjustable
Line regulation	$\leq$ 0.3%FS rms
Load regulation	$\leq$ 0.5%FS rms
Ripple & Noise	$\leq$ 0.5%FS+10mVrms
Time drift	$\leq$ 1%FS rms
Temperature drift	$\leq$ 0.3%FS rms/ $^{\circ}$ C
Setting accuracy	$\pm$ (0.5% FS +3 digits) (25 $\pm$ 5 $^{\circ}$ C)
Display	
Voltmeter	4 digits LCD display
Ammeter	4 digits LCD display
Voltage resolution	0.000V-9.999V; 0.00V-99.99V; 0.0V-999.9V; 0V-9999V
Current resolution	0.000A-9.999A; 0.00A-99.99A; 0.0A-999.9A; 0A-9999A
Reading accuracy	$\pm$ (0.5% FS +3 digits) (25 $\pm$ 5 $^{\circ}$ C)
Protection	
Over Voltage Protection (O.V.P.)	Built-in OVP protection with limit of 110% rated voltage. The output will be shut down when OVP is activated.
Over Current Protection (O.C.P.)	Built-in OCP protection with limit of 110% rated current. The output will be shut down when OCP is activated.
Over Temperature Protection (O.T.P.)	Built-in OTP protection with heat sink temperature limit of 80 $^{\circ}$ C $\pm$ 5%. The output will be shut down when OTP is activated.
General	
Cooling method	Air cool
Operating environment	0 $^{\circ}$ C~40 $^{\circ}$ C, 10%~80%RH
Storage environment	-20 $^{\circ}$ C~70 $^{\circ}$ C, 10%~90%RH
Input module	Power socket or terminal block
Accessories	Operation manual: 1EA

High Power DC Power Supply

Selection guide

Model	Rated voltage	Rated current	Rated Power	Input Voltage
PWD5-2000	0~5V	0~2000A	10KW	3P 380Vac
PWD5-3000	0~5V	0~3000A	15KW	3P 380Vac
PWD10-1000	0~10V	0~1000A	10KW	3P 380Vac
PWD10-2000	0~10V	0~2000A	20KW	3P 380Vac
PWD10-3000	0~10V	0~3000A	30KW	3P 380Vac
PWD15-1000	0~15V	0~1000A	15KW	3P 380Vac
PWD15-2000	0~15V	0~2000A	30KW	3P 380Vac
PWD15-3000	0~15V	0~3000A	45KW	3P 380Vac
PWD15-4000	0~15V	0~4000A	60KW	3P 380Vac
PWD30-1000	0~30V	0~1000A	30KW	3P 380Vac
PWD30-2000	0~30V	0~2000A	60KW	3P 380Vac
PWD30-3000	0~30V	0~3000A	90KW	3P 380Vac
PWD20-300	0~20V	0~300A	6KW	1P 220Vac
PWD60-1000	0~60V	0~1000A	60KW	3P 380Vac
PWD60-1500	0~60V	0~1500A	90KW	3P 380Vac
PWD60-2000	0~60V	0~2000A	120KW	3P 380Vac
PWD100-1000	0~100V	0~1000A	100KW	3P 380Vac
PWD100-1500	0~100V	0~1500A	150KW	3P 380Vac
PWD100-2000	0~100V	0~2000A	200KW	3P 380Vac
PWD300-1000	0~300V	0~1000A	300KW	3P 380Vac
PWD300-1500	0~300V	0~1500A	450KW	3P 380Vac
PWD300-2000	0~300V	0~2000A	600KW	3P 380Vac
PWD1000-20	0~1000V	0~20A	20KW	3P 380Vac
PWD1000-30	0~1000V	0~30A	30KW	3P 380Vac
PWD1000-50	0~1000V	0~50A	50KW	3P 380Vac
PWD1000-100	0~1000V	0~100A	100KW	3P 380Vac
PWD2000-10	0~2000V	0~10A	20KW	3P 380Vac
PWD2000-20	0~2000V	0~20A	40KW	3P 380Vac
PWD2000-30	0~2000V	0~30A	60KW	3P 380Vac
PWD2000-50	0~2000V	0~50A	100KW	3P 380Vac

The above models are listed for reference only. Customer specifications are welcome.
Specifications are subject to change without prior notice.